



UNITED STATES PATENT AND TRADEMARK OFFICE

can

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/913,859	03/28/2002	Gregory J. Momber	SIEBE96517-US	5466

23626 7590 09/18/2006

LEYDIG VOIT & MAYER, LTD.
(ROCKFORD OFFICE)
TWO PRUDENTIAL PLAZA, SUITE 4900
180 NORTH STESTON AVENUE
CHICAGO, IL 60601-6780

EXAMINER

DEBERADINIS, ROBERT L

ART UNIT	PAPER NUMBER
----------	--------------

2836

DATE MAILED: 09/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/913,859

Applicant(s)

MOMBER, GREGORY J.

Examiner

Robert DeBeradinis

Art Unit

2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,13 and 15-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,6-13 and 15-25 is/are rejected.
- 7) ☒ Claim(s) 3,4,5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

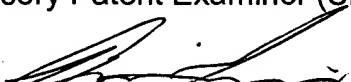
The reply filed 9/19/05 consisted of an Appeal Brief.

In view of the arguments filed on 9/19/05, **PROSECUTION IS HEREBY REOPENED**. A new rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below: 

Response to Arguments

Applicant's arguments, see Appeal Brief page 4, filed 5/19/05, with respect to "inverter" have been fully considered and are persuasive. The final rejection of 2/9/05 has been withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,6-13,15-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over PECORE 6,014,325 in view of LIMPAECHER 5,270,913.

Regarding Claims 1,9,13,15,19-21,23.

PECORE discloses a dual output transformer less power supply comprising; a first dc stage (519) responsive to an ac input, having a first wave rectifier (530,528) including at least one diode with a regulated dc output (519) exhibiting a first polarity and including a first voltage regulator having at least one zener diode (col. 1, lines 50-60, fig. 6); and a second dc output stage (504) responsive to said ac input, having a second wave (502,524) rectifier including at least one diode with a regulated dc output (516).

PECORE does not disclose the second output stage inverted by an inverter connected to said second wave rectifier to be said first polarity, and including second regulator having at least one zener diode.

LIMPAECHER teaches a transformer less power conversion system including DC to DC transformation and means to electrically invert the voltage polarity of a plurality of capacitors (claim 1).

It would have been obvious to one having ordinary skill in the art at the time of this invention to have modified the transformer less power supply to invert the second wave rectifier including the at least one diode with a regulated dc output inverted by an inverter connected to said second wave rectifier to be said first polarity. The motivation would be to provide a dual output transformer less power supply with the means to invert the first dc output with respect to the second dc output (LIMPAECHER col. 7, lines 64-68, col. 8, 1-3).

Regarding claim 6.

PECORE in view of LIMPAECHER discloses a dual output transformer less power supply, according to claim 1.

PECORE discloses capacitors connected to output stages.

It would be obvious to connect capacitors to output stages to smooth or reduce ripple on the dc output voltages.

Regarding claim 7.

PECORE in view of LIMPAECHER discloses a dual output transformer less power supply, according to claim 1, wherein said first voltage regulator circuit is connected to said first wave rectifier, and said second voltage regulator circuit is connected to said second wave rectifier (figure 6).

Regarding claims 8,16-18,22.

PECORE in view of LIMPAECHER disclose the dial output transformer less power supply, according to claim 1.

PECORE teaches a dual output power supply.

LIMPAECHER teaches a transformer less transformation of the inverted function of the dc output of the ac to dc converter and the filtering of the dc output (figure 6).

It would have been obvious to one having ordinary skill in the art to have modified the dual output transformer less power supply to include output filters to filter out high frequencies.

Regarding claim 10.

PECORE in view of LIMPAECHER disclose the dial output transformer less power supply, according to claim 1.

PECORE discloses a first capacitor connected to the output of said first wave rectifier (538); and a second capacitor (532) connected to the output of said second wave rectifier.

Regarding claims 11,24,25.

PECORE in view of LIMPAECHER disclose the dial output transformer less power supply, according to claim 1.

PECORE discloses a relay voltage that is controlled by a microprocessor (650).

Regarding claim 12.

PECORE in view of LIMPAECHER disclose the dial output transformer less power supply, according to claim 11.

PECORE teaches a microprocessor controlling drivers including line sync (611) that is connected to ac, obviously not a logic level, an obvious requirement for a microcontroller. It is obvious that the line sync circuit would require level shifting circuit

to interface an ac signal with the required logic level for the microcontroller to operate properly.


Allowable Subject Matter


Claims 3,4,5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication should be directed to Robert L. DeBeradinis whose number is (571) 272-2049. The Examiner can normally be reached Monday-Friday from 8:30 am to 5:00 pm. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Brian Sircus, can be reached on (571) 272-2058. The Fax phone number for this Group is (703) 872-9306.

RLD

SEPTEMBER 13, 2006


ROBERT L. DEBERADINIS
PRIMARY EXAMINER


BRIAN SIRCUS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800